

ABSTRACT

An apparatus for creating an atmospheric mini-plasma. The apparatus uses both a plasma support gas and a plasma reactive gas attached to a conduit in communication with a plasma generating region. The plasma generating region is designed with a gas inlet leading to a tube containing two parallel electrodes. The electrodes are attached to a direct current, continuous or pulsed, power supply that provides the electrical potential to create the atmospheric mini-plasma. The atmospheric mini-plasma discharges from the generating region opposite to the gas inlet. As the design of the plasma generating region is relatively small, a plurality of generating regions may be coupled together in an array. The additional feature of a pulsed power supply allows a compact design that is portable for field use.